Rice varieties with more arsenic

22. SHRI N.K. SINGH: Will the Minister of AGRICULTURE be pleased to state:

(a) whether it is a fact that CSIR has found some rice varieties which accumulate much more arsenic from the soil with the result that their consumption is dangerous for human health;

(b) if so, the details thereof; and

(c) whether any steps are contemplated to counter the arsenic effect?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTILAL BHURIA): (a) and (b) The studies conducted by National Botanical Research Institute, Lucknow under Council of Scientific and Industrial Research (CSIR) have found rice germplasms such as BRG-12, BRG-15 and BRG-20 accumulating higher arsenic (range 1034 ug 2650 ug/kg grain rice). Certain rice germplasms accumulating lower arsenic level were also identified: CN-1646-2, CN-1646-5, Gotrabhog and Nayanmoni (range 78.65 ug to 112.26 fig/kg grain rice).

(c) The Indian Council of Agricultural Research (ICAR) had taken up research on mitigation options of arsenic problem in West Bengal. Growing various legumes and pulses need to be encouraged which require less ground water. There should be more use of organic and green manures that moderate arsenic toxicity in soil-plant system by forming oregano-arsenic complexes. The Blue Green Algae (BGA) having ability to decontaminate soils of arsenic should be introduced in the paddy fields. To have more basic and strategic research in arsenic related problems in entire food chain, a project under National Agricultural Innovation Project (NAIP) involving six centres with Bidhan Chandra Krishi Vishwa Vidyalaya (BCKVV), Mohanpur as lead centre has been initiated for a period of more than 5 years with a budget of Rs.6.24 crores.

Law for protection of bovine species

23. SHRI RAJKUMAR DHOOT: Will the Minister of AGRICULTURE be pleased to state:

(a) whether Government has made any law for protection of bovine species;

(b) if, so the details therefor; and

(c) if not, the reasons therefor?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI TASLIMUDDIN): (a) and (b) No, Sir. However, Government of India has initiated a major programme National Project for Cattle and Buffalo Breeding (NPCBB) in October 2000 in two phases of five years each. NPCBB envisages genetic upgradation of bovine population on priority basis and also has focus on development and conservation of indigenous breeds. In addition, the Government of India is also implementing Central Sector Schemes *viz.* Central Cattle Breeding Farms (CCBFs), Central Frozen Semen Production and Training Institute (CFSP&TI) and Central Herd Registration Scheme (CHRS) for the development of bovine population .

(c) The issues related to law for protection of bovine species come under the purview of the State legislature. Some of the States have already passed legislations on protection of bovine species.

Agro-research in the country

†24. SHRI RAJ MOHINDER SINGH MAJITHA:
SHRI SHIVANAND TIWARI:

Will the Minister of AGRICULTURE be pleased to state:

(a) whether it is a fact that research work is going on in Government sector institutes to enhance the quality and production of agro-products in the country;

(b) if so, the number of institutes engaged in Agro-research in the country by the end of December, 2008;

(c) the break-up of personnel engaged in research work, administrative work and services in these institutes; and

(d) the amount spent on these institutes during 2004-05 and 2007-08?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTILAL BHURIA): (a) Yes, Sir.

(b) Under the Indian Council of Agricultural Research, 95 institutes are engaged in agro-research including 48 National/Central Institutes, 6 National Bureaux, 22 National Research Centres (NRCs) and 19 Project Directorates (PDs).

(c) The number of personnel engaged in research work, administrative work and services in the institutes including ICAR headquarter is as follows:-

Scientists	4165
Technical	6478
Administrative	4440
Supporting	8292

(d) The amount spent on institutes during 2004-05 and 2007-08:-

(Rs. in Crore)

	Plan	Non-plan
2004-05	858.98	788.37
2007-08	1284.26	948.95

Need for a second green revolution

25. SHRI KAMAL AKHTAR: Will the Minister of AGRICULTURE be pleased to state:

(a) whether a report by Associated Chamber of Commerce and Industry of India (ASSOCHAM) has recommended that second Green Revolution is called for the produce high yielding of agricultural products to meet the growing demand;